Caritas Medical Centre announces root cause analysis report of previous sentinel event

The following is issued on behalf of the Hospital Authority:

The spokesman for Caritas Medical Centre (CMC) today (January 30) announces the root cause analysis report of a previous sentinel event:

A 79-year-old male eye patient was admitted to CMC Ophthalmology ward on November 27, 2023 for a scheduled surgery. He was suspected to have acute intestinal obstruction and developed bacteraemia subsequently. His condition continued to deteriorate. The patient was escorted to the ICU for further treatment in the morning of November 28 2023. The patient initially received oxygen from the ward's oxygen supply, the supply was later switched through an oxygen cylinder. His blood oxygen saturation was stable at the start of transport process. However, the patient developed decrease in blood oxygen saturation after entering the elevator. Attempts were made to increase the oxygen flow, but patient's blood oxygen saturation continued to decrease. The patient was transferred from the ward to the ICU in around 1.5 minutes. Upon arrival at the ICU, healthcare team discovered that the valve of the oxygen cylinder used in the transport process had not been turned on. Oxygen supply was resumed for the patient immediately. Patient's condition deteriorated further, and intubation and cardiopulmonary resuscitation had been performed by healthcare team. However, the patient continued to deteriorate and succumbed at 12.50pm on the same day.

The CMC announced the incident afterwards and a Root Cause Analysis Panel was formed to investigate the incident. The Panel considered that multiple factors existed in this sentinel event, including unclear role delineation of preparing monitoring equipment and oxygen cylinder prior to the transportation of critically ill patient; Inadequate clinical handover before departure as additional healthcare staff joined in to assist the pre-transport preparation, and some healthcare staff joined the transport procedure just before departure. Furthermore, the oxygen cylinder concerned had a potential space between oxygen valve and the oxygen flow adjustment knob. Residual oxygen remained in this potential space might create sound of gas flow when the oxygen flow adjustment knob was turned on despite the oxygen valve was closed. Healthcare staff might be misled by the sound of gas flow. Also, the transport of critically ill patients in the involved ward was infrequent and there was insufficient in-service refresher training.

The panel made the following recommendations:

1. Refresher in-service training should be strengthened to healthcare professionals who need to handle with the use of oxygen cylinder and who need to participate in transport of critically ill patients.
2. Role delineation of transport team members should be specified in both

preparation phase and during the transport procedure. Patient's condition should be reviewed before departure and where appropriate, more experienced team such as intensive care team, could be consulted.
3. Clinical handover and documentation should be emphasized in the whole transport of critically ill patient process with the use of transportation form and checklist. Crew resources management training is suggested to enhance communication in handling critically ill patients.
4. Feedback the potential pitfalls related to the design and the use of oxygen cylinder to Quality & Safety team of the Hospital Authority Head Office.
5. Put up education poster about the proper use of oxygen cylinders at oxygen cylinder storage locations and the use of cue card attached to each oxygen cylinder.

CMC will implement the relevant recommendations to enhance the safety of transport of critically ill patients. The hospital has met with family members to explain the report's findings. The CMC once again apologizes and expresses its deep condolences for the incident. The hospital will maintain communication with family members and provide necessary assistance.

CMC has submitted the report to the Hospital Authority Head Office. The hospital also expressed gratitude to the panel. Membership of the panel is as follows:

Chairperson:

Dr Raymond Cheung Wai-man
Service Director (Quality & Safety), Kowloon West Cluster, Hospital Authority

Members:

Dr Rita So Ching-yee
Chief of Service, Department of Anaesthesia, Princess Margaret Hospital/ North Lantau Hospital/ Yan Chai Hospital

Ms Mak Wai-ling
Department Operations Manager, Intensive Care Unit, Princess Margaret Hospital/ Yan Chai Hospital

Dr George Ng Wing-yiu
Chief of Service, Intensive Care Unit, Queen Elizabeth Hospital

Mr William Chan Yuk-wing
Nurse Consultant (Emergency Care), Department of Accident and Emergency, New Territories West Cluster, Hospital Authority

Mr Chan Man-nok
Chief Nursing Officer, Nursing Services Department, Hospital Authority Head Office

Dr Nicole Chau Suet-ming
Senior Manager (Patient Safety & Risk Management), Quality & Safety Division, Hospital Authority Head Office